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NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 MAY 01 New CAS web site launched
NEWS 3 MAY 08 CA/CAPplus Indian patent publication number format defined
NEWS 4 MAY 14 RDISCLOSURE on STN Easy enhanced with new search and display fields
NEWS 5 MAY 21 BIOSIS reloaded and enhanced with archival data
NEWS 6 MAY 21 TOXCENTER enhanced with BIOSIS reload
NEWS 7 MAY 21 CA/CAPplus enhanced with additional kind codes for German patents
NEWS 8 MAY 22 CA/CAPplus enhanced with IPC reclassification in Japanese patents
NEWS 9 JUN 27 CA/CAPplus enhanced with pre-1967 CAS Registry Numbers
NEWS 10 JUN 29 STN Viewer now available
NEWS 11 JUN 29 STN Express, Version 8.2, now available
NEWS 12 JUL 02 LEMBASE coverage updated
NEWS 13 JUL 02 LMEDLINE coverage updated
NEWS 14 JUL 02 SCISEARCH enhanced with complete author names
NEWS 15 JUL 02 CHEMCATS accession numbers revised
NEWS 16 JUL 02 CA/CAPplus enhanced with utility model patents from China
NEWS 17 JUL 16 CAPplus enhanced with French and German abstracts
NEWS 18 JUL 18 CA/CAPplus patent coverage enhanced
NEWS 19 JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 20 JUL 30 USGENE now available on STN
NEWS 21 AUG 06 CAS REGISTRY enhanced with new experimental property tags
NEWS 22 AUG 06 BEILSTEIN updated with new compounds
NEWS 23 AUG 06 FSTA enhanced with new thesaurus edition
NEWS 24 AUG 13 CA/CAPplus enhanced with additional kind codes for granted patents
NEWS 25 AUG 20 CA/CAPplus enhanced with CAS indexing in pre-1907 records

NEWS EXPRESS 29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
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FILE 'HOME' ENTERED AT 21:08:56 ON 23 AUG 2007

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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

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STRUCTURE FILE UPDATES: 22 AUG 2007 HIGHEST RN 945451-07-0

DICTIONARY FILE UPDATES: 22 AUG 2007 HIGHEST RN 945451-07-0

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TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

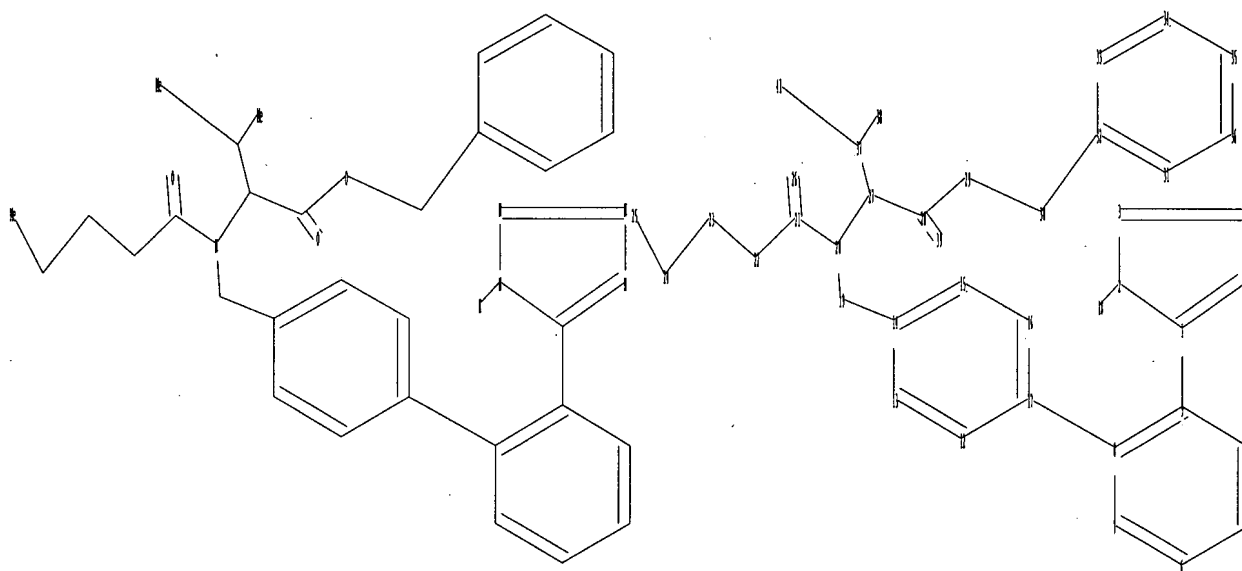
REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

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chain nodes :
18 19 20 21 22 23 24 25 26 27 28 29 30 37 38 39 41
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 31 32 33 34 35 36
chain bonds :
1-9 2-18 8-17 14-19 19-20 20-21 20-27 21-22 21-26 22-23 23-24 24-25
27-28 27-37 28-29 28-39 29-30 30-32 37-38 37-41
ring bonds :
1-2 1-5 2-3 3-4 4-5 6-7 6-11 7-8 8-9 9-10 10-11 12-13 12-17 13-14
14-15 15-16 16-17 31-32 31-36 32-33 33-34 34-35 35-36
exact/norm bonds :
1-2 1-5 2-3 3-4 4-5 19-20 20-21 20-27 21-26 28-29 28-39 29-30
exact bonds :
1-9 2-18 8-17 14-19 21-22 22-23 23-24 24-25 27-28 27-37 30-32 37-38
37-41
normalized bonds :
6-7 6-11 7-8 8-9 9-10 10-11 12-13 12-17 13-14 14-15 15-16 16-17 31-32
31-36 32-33 33-34 34-35 35-36
isolated ring systems :
containing 1 : 6 : 12 : 31 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:CLASS 19:CLASS
20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS
28:CLASS 29:CLASS 30:CLASS 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom
37:CLASS 38:CLASS 39:CLASS 41:CLASS

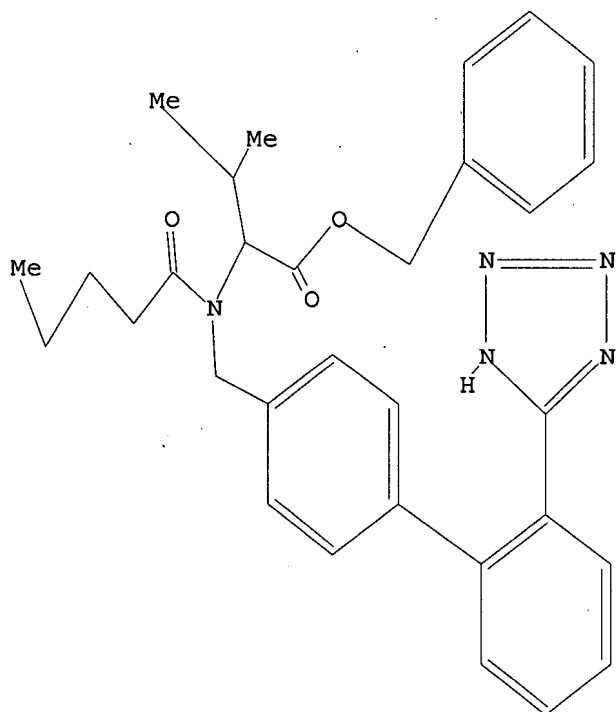
L1 STRUCTURE UPLOADED

=> d 11
L1 HAS NO ANSWERS

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L1

STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 21:09:32 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 28 TO ITERATE

100.0% PROCESSED 28 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 243 TO 877
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 sss full

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FULL SCREEN SEARCH COMPLETED - 613 TO ITERATE

100.0% PROCESSED 613 ITERATIONS
SEARCH TIME: 00.00.01

L3 6 SEA SSS FUL L1

=> FIL HCAPLUS
COST IN U.S. DOLLARS
FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
172.10	172.31

6 ANSWERS

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FILE 'HCAPLUS' ENTERED AT 21:09:44 ON 23 AUG 2007
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FILE COVERS 1907 - 23 Aug 2007 VOL 147 ISS 9
FILE LAST UPDATED: 22 Aug 2007 (20070822/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3

L4 11 L3

=> s l4 and valsartan

1519 VALSARTAN

L5 8 L4 AND VALSARTAN

=> d l4 ibib abs hitstr tot

L4 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1322871 HCAPLUS

DOCUMENT NUMBER: 146:229269

TITLE: Safe and fast tetrazole formation in ionic liquids

AUTHOR(S): Schmidt, Boris; Meid, Daniela; Kieser, Daniel

CORPORATE SOURCE: Clemens Schoepf-Institute for Organic Chemistry and Biochemistry, Darmstadt Technical University, Darmstadt, D-64287, Germany

SOURCE: Tetrahedron (2006), Volume Date 2007, 63(2), 492-496

CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 146:229269

AB The [2 + 3]-cycloaddn. of nitriles and azides is reliable for intramol. reactions, but the hazards with volatile azides in intermol. reactions are tremendous. Zinc catalysis in aqueous solution is a magnificent improvement, but

requires the removal of the zinc salts from the acidic product. The use of safe solvents featuring low vapor pressure and good solubility of NaN_3 , is reported. Ionic liqs. based on alkylated imidazoles combined with microwave heating turned out to be a solution for the given tasks.

IT 137863-20-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

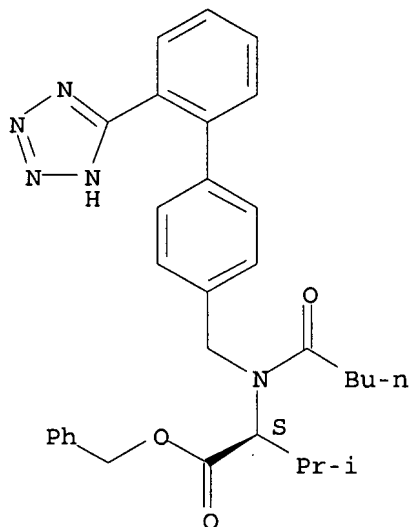
(preparation of tetrazoles via [2 + 3]-cycloaddn. of carbonitriles with azide in ionic liquid)

RN 137863-20-8 HCAPLUS

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CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1118698 HCAPLUS

DOCUMENT NUMBER: 145:455017

TITLE: Process for the preparation of valsartan and its intermediates

INVENTOR(S): Kumar, Ashok; Nimbalkar, Manmohan Madhavrao; Barve, Sanjay Govind; Metil, Dattatray Shamrao; Shimpukade, Bharat Dinkar; Kushwaha, Lavkesh; Kelkar, Rahul Suresh

PATENT ASSIGNEE(S): Ipca Laboratories Ltd., India

SOURCE: Eur. Pat. Appl., 16pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1714963	A1	20061025	EP 2006-112734	20060418
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
IN 2005MU00490	A	20051209	IN 2005-MU490	20050419
US 2006281801	A1	20061214	US 2006-405522	20060418
PRIORITY APPLN. INFO.:			IN 2005-MU490	A 20050419

OTHER SOURCE(S): CASREACT 145:455017

AB A process for preparing valsartan comprises: purifying intermediate benzyl valsartan by crystallizing the benzyl valsartan of lower purity from a first solvent which is a ternary mixture comprising a hydrophilic solvent, a non-polar protic solvent, and water; recovering benzyl valsartan from the ternary mixture followed by crystallizing benzyl valsartan from a second solvent

comprising a non-polar aprotic solvent or polar aprotic solvent or their mixture; recovering benzyl valsartan substantially free of organotin impurity; and converting said benzyl valsartan by catalytic hydrogenolysis (e.g., using H₂ and Pd/C) into valsartan.

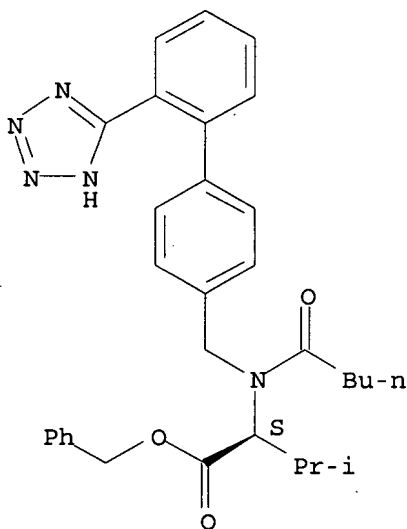
IT 137863-20-8P

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(process for preparation of valsartan and its intermediates)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:630367 HCAPLUS

DOCUMENT NUMBER: 145:103949

TITLE: Preparation of phenylboronic acid intermediates in the synthesis of valsartan, an angiotensin II receptor antagonist

INVENTOR(S): Rafecas-Jane, Llorenc; Riera-Escale, Antoni; Ecija-Queralt, Marta; Moyano-Baldoire, Albert; Comely, Alex; Casalprim-Castella, Irene

PATENT ASSIGNEE(S): Enantia, S. L., Spain

SOURCE: PCT Int. Appl., 41 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006067216	A2	20060629	WO 2005-EP57104	<u>20051222</u>
WO 2006067216	A3	20060817		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

EP 2004-106863

A 20041222

OTHER SOURCE(S):

CASREACT 145:103949; MARPAT 145:103949

AB The invention relates to new substituted N-(borylphenylmethyl)valine derivs. p-Y1Y2BC6H4CH2NR2CHR1CHMe2 [Y1, Y2 are independently hydroxy, alkoxy, or (un)substituted phenoxy; or Y1 and Y2 combine to form o-phenylenedioxy or (un)substituted alkylenedioxy; R1 is a group which may be converted into a carboxy group; R2 is H or pentanoyl] which are intermediates in the synthesis of valsartan. The process involves reaction of the N-(borylphenylmethyl)valine derivs. with a (halophenyl)tetrazole compound and is particularly advantageous because it avoids the use of azide derivs. and expensive biphenyl intermediates. Thus, Me N-[[4-(5,5-dimethyl[1,3,2]dioxaborinan-2-yl)phenyl]methyl]-N-pentanoyl-L-valinate (preparation given) was treated with 5-(2-bromophenyl)-1-(triphenylmethyl)-1H-tetrazole and the product treated with 1 M HCl in MeOH and then 10% NaOH to afford valsartan [N-pentanoyl-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-L-valine].

IT 137863-20-8P

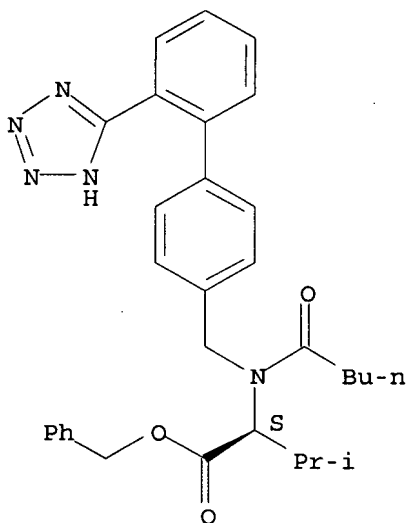
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of phenylboronic acid intermediates in synthesis of valsartan, an angiotensin II receptor antagonist)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:472137 HCAPLUS
 DOCUMENT NUMBER: 143:26874
 TITLE: Process for the preparation and precipitation
 purification of valsartan
 INVENTOR(S): Kumar, Yatendra; Prasad, Mohan; Lahiri, Saswata;
 Maheshwari, Nitin; Saxena, Ira
 PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India
 SOURCE: PCT Int. Appl., 12 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005049588	A1	20050602	WO 2004-IB3809	20041122
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

IN 2003DE01446	A	20051125	IN 2003-DE1446	20031121
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PRIORITY APPLN. INFO.:	IN 2003-DE1446	A	20031121
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AB Valsartan is isolated from its synthesis mixts. by: (A) providing a solution
 of valsartan in one or more suitable solvent(s); (B) adding one or more
 antisolvent(s) to the above solution or adding the above solution to one or
 more
 antisolvent(s) to form a mixture comprising solid valsartan; and (C)
 isolating the solid valsartan having a purity of >99 %.

IT 137863-20-8P

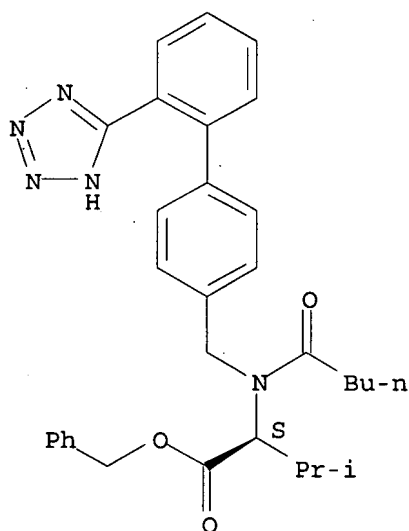
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(in a process for the preparation and precipitation purification of valsartan)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-
 yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:216812 HCAPLUS

DOCUMENT NUMBER: 142:298118

TITLE: Method for removing the triphenylmethane protecting group from biphenyltetrazoles

INVENTOR(S): Radl, Stanislav; Stach, Jan; Klecan, Ondrej

PATENT ASSIGNEE(S): Zentiva, A.S., Czech Rep.

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005021535	A2	20050310	WO 2004-CZ51	20040826
WO 2005021535	A3	20050609		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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CZ 297016	B6	20060816	CZ 2003-2319	20030827
CA 2536781	A1	20050310	CA 2004-2536781	20040826
EP 1658281	A2	20060524	EP 2004-762303	20040826
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, HR				
US 2006287537	A1	20061221	US 2006-569428	20060223

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PRIORITY APPLN. INFO.:

CZ 2003-2319

A 20030827

CZ 2004-733

A 20040616

WO 2004-CZ51

W 20040826

OTHER SOURCE(S):

CASREACT 142:298118; MARPAT 142:298118

AB The trityl protective group is removed from losartan and related compds. by alcoholysis with anhydrous alc. in neutral or slightly basic medium. The method is used to prepare the potassium salts of losartan, irbesartan or valsartan or candesartan cilexetil.

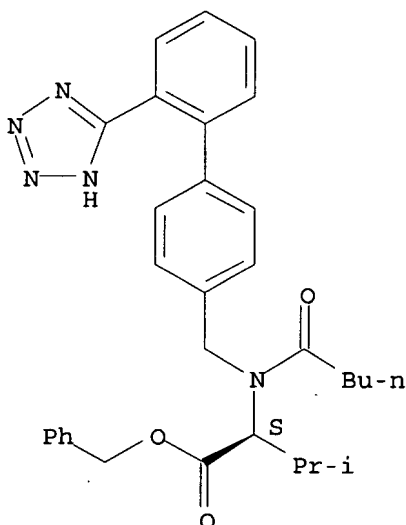
IT 137863-20-8P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(method for removing the triphenylmethane protecting group from biphenyltetrazoles)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:120707 HCAPLUS

DOCUMENT NUMBER: 142:191264

TITLE: Preparation of nitro derivatives of heterocyclic compounds as angiotensin II receptor blockers for therapeutic use

INVENTOR(S): Almirante, Nicoletta; Del Soldato, Piero; Ongini, Ennio

PATENT ASSIGNEE(S): Nicox S.A., Fr.

SOURCE: PCT Int. Appl., 104 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

WO 2005011646

A2

20050210

WO 2004-EP51550

20040720

08/23/2007

Page 11

WO 2005011646 A3 20050421
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AU 2004260830 A1 20050210 AU 2004-260830 20040720
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BR 2004013028 A 20061003 BR 2004-13028 20040720
JP 2007500684 T 20070118 JP 2006-521571 20040720
AU 2005263655 A1 20060126 AU 2005-263655 20050202
CA 2574666 A1 20060126 CA 2005-2574666 20050202
WO 2006008196 A1 20060126 WO 2005-EP50459 20050202
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

EP 1778617 A1 20070502 EP 2005-707928 20050202
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU

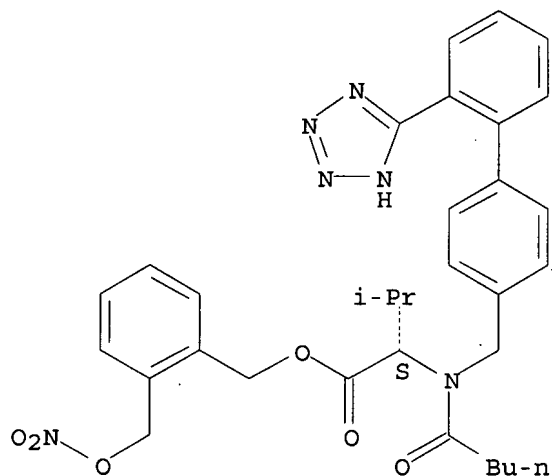
CN 1984871 A 20070620 CN 2005-80024051 20050202
US 2006276523 A1 20061207 US 2006-566292 20060127
MX 2006PA01263 A 20060411 MX 2006-PA1263 20060131
IN 2006CN00674 A 20070608 IN 2006-CN674 20060223
NO 2006000900 A 20060224 NO 2006-900 20060224

PRIORITY APPLN. INFO.: EP 2003-102379 A 20030731
WO 2004-EP51550 W 20040720
WO 2005-EP50459 W 20050202

OTHER SOURCE(S): CASREACT 142:191264; MARPAT 142:191264
AB Angiotensin II receptor blocker nitro derivs. of formula (I): R-(Y-ONO2)s (I) having wider pharmacol. activity and enhanced tolerability are claimed. They can be employed for treating cardiovascular, renal and chronic liver diseases and inflammatory processes.
IT 838876-86-1 838876-90-7 838876-94-1
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of nitro derivs. of heterocyclic compds. as angiotensin II receptor blockers for therapeutic use)
RN 838876-86-1 HCAPLUS
CN L-Valine, N-(1-oxopentyl)-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl)methyl]-, [2-[(nitrooxy)methyl]phenyl]methyl ester (9CI) (CA INDEX NAME)

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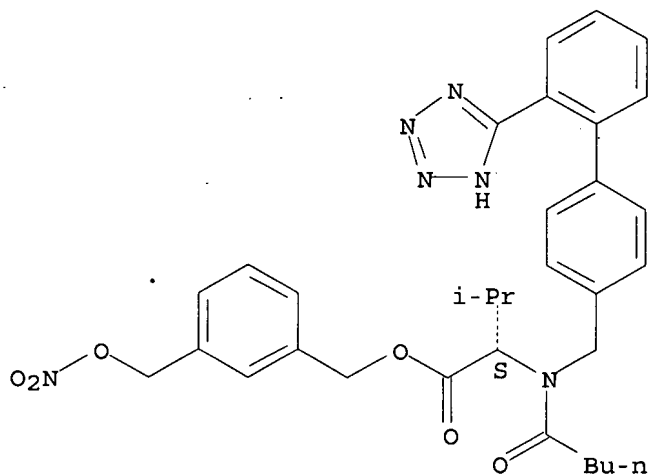
Absolute stereochemistry.



RN 838876-90-7 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, [3-[(nitrooxy)methyl]phenyl]methyl ester (9CI) (CA INDEX NAME)

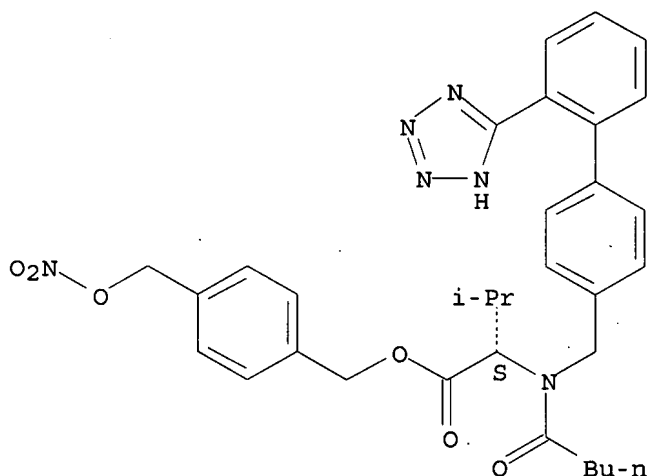
Absolute stereochemistry.



RN 838876-94-1 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, [4-[(nitrooxy)methyl]phenyl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1127352 HCAPLUS

DOCUMENT NUMBER: 142:56657

TITLE: Saponification and acid neutralization process for the preparation of valsartan from valsartan benzyl ester

INVENTOR(S): Parthasaradhi Reddy, Bandi; Rathnakar Reddy, Kura; Raji Reddy, Rapolu; Muralidhara Reddy, Dasari

PATENT ASSIGNEE(S): Hetero Drugs Limited, India

SOURCE: PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004111018	A1	20041223	WO 2003-IN218	20030616
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003245037	A1	20050104	AU 2003-245037	20030616
IN 2003CN00944	A	20050422	IN 2003-CN944	20030616
US 2006100443	A1	20060511	US 2005-539811	20050620
PRIORITY APPLN. INFO.:			WO 2003-IN218	A 20030616

OTHER SOURCE(S): CASREACT 142:56657

AB Valsartan is prepared by the hydrolysis of valsartan benzyl ester with an alkali (e.g., sodium hydroxide), washing with an organic solvent, acidifying with an acid (e.g., hydrochloric acid), and isolating valsartan from the reaction mixture

IT 137863-20-8

RL: RCT (Reactant); RACT (Reactant or reagent)

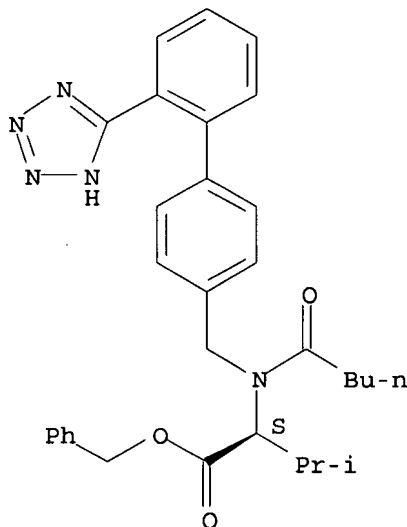
(saponification and acid neutralization process for the preparation of valsartan

from valsartan benzyl ester)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:267315 HCAPLUS

DOCUMENT NUMBER: 140:287711

TITLE: Process for the manufacture of valsartan

INVENTOR(S): Denni-Dischert, Donatienne; Hirt, Hans; Neville, Dan; Sedelmeier, Gottfried; Schnyder, Anita; Derrien, Nadine; Kaufmann, Daniel

PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Novartis Pharma G.m.b.H.

SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004026847	A1	20040401	WO 2003-EP10543	20030922
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SY, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW				
RW: AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				

CA 2502629	A1	20040401	CA 2003-2502629	20030922
AU 2003270241	A1	20040408	AU 2003-270241	20030922
BR 2003014132	A	20050628	BR 2003-14132	20030922
EP 1546122	A1	20050629	EP 2003-750599	20030922
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CN 1688556	A	20051026	CN 2003-824514	20030922
JP 2006502178	T	20060119	JP 2004-537146	20030922
ZA 2005002159	A	20050921	ZA 2005-2159	20050315
IN 2005CN00421	A	20070427	IN 2005-CN421	20050318
MX 2005PA03140	A	20050622	MX 2005-PA3140	20050322
NO 2005001970	A	20050616	NO 2005-1970	20050422
US 2006069268	A1	20060330	US 2005-528323	20050505
PRIORITY APPLN. INFO.:			GB 2002-22056	A 20020923
			WO 2003-EP10543	W 20030922

OTHER SOURCE(S): MARPAT 140:287711

AB A process for the manufacture of valsartan is reported. Thus, L-valine was treated with 2'-(1H-tetrazol-5-yl)biphenyl-4-carboxaldehyde to give the imine which was reduced with NaBH₄ and acylated with BuCOCl.

IT 137863-20-8P

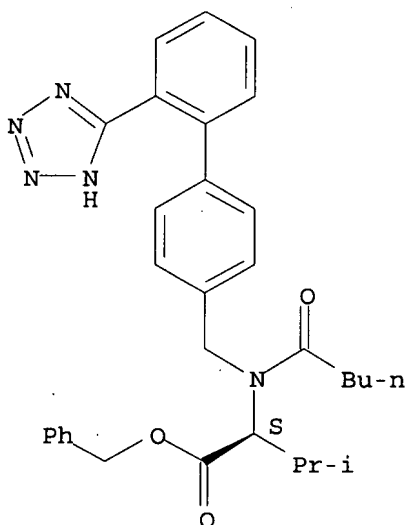
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(process for the manufacture of valsartan)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:912999 HCAPLUS

DOCUMENT NUMBER: 139:391358

TITLE: Use of valsartan or its metabolite to inhibit platelet aggregation

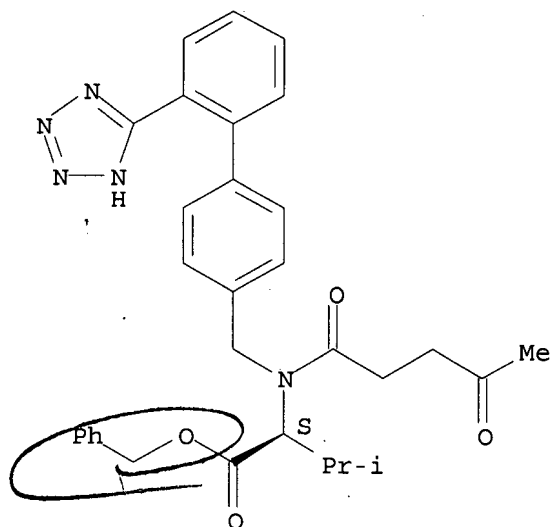
INVENTOR(S): Malinin, Alex; Serebruany, Victor L.; Webb, Randy Lee

PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Novartis Pharma G.m.b.H.

SOURCE: PCT Int. Appl., 34 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003094915	A1	20031120	WO 2003-EP4997	20030513
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SE, SG, SK, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW				
RW: AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
AU 2003267447	A1	20031111	AU 2003-267447	20030513
CA 2482541	A1	20031120	CA 2003-2482541	20030513
BR 2003010018	A	20050215	BR 2003-10018	20030513
EP 1505965	A1	20050216	EP 2003-749892	20030513
EP 1505965	B1	20060802		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1652774	A	20050810	CN 2003-810864	20030513
JP 2005529913	T	20051006	JP 2004-503001	20030513
AT 334677	T	20060815	AT 2003-749892	20030513
NZ 536295	A	20061222	NZ 2003-536295	20030513
ES 2268403	T3	20070316	ES 2003-3749892	20030513
ZA 2004007578	A	20060726	ZA 2004-7578	20040921
MX 2004PA11282	A	20050125	MX 2004-PA11282	20041112
US 2005197372	A1	20050908	US 2004-514299	20041112
NO 2004005245	A	20041130	NO 2004-5245	20041130
HK 1074395	A1	20070525	HK 2005-106187	20050721
PRIORITY APPLN. INFO.:			US 2002-380373P	P 20020514
			US 2002-395014P	P 20020711
			WO 2003-EP4997	W 20030513
AB	The invention provides a method for inhibiting platelet aggregation, comprising administering a therapeutically effective amount of an angiotensin II receptor blocker or metabolite thereof, especially valsartan or its metabolite, valeryl 4-hydroxyvalsartan (preparation described). Conditions to be treated by inhibition of platelet aggregation include acute myocardial infarction, ischemic stroke, angina pectoris, acute coronary syndromes, TIA (transient ischemic attacks, or acute cerebrovascular syndromes), heart failure, chest pain of ischemic etiol., syndrome X, thromboembolism, pulmonary hypertension, diabetes mellitus, peripheral vascular disease, deep vein thrombosis, arterial thrombosis of any vessel, and catheter thrombotic occlusion or reocclusion.			
IT	188240-32-6P			
	RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (valsartan or metabolite to inhibit platelet aggregation)			
RN	188240-32-6 HCAPLUS			
CN	L-Valine, N-(1,4-dioxopentyl)-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)			

Absolute stereochemistry.



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:108051 HCAPLUS

DOCUMENT NUMBER: 126:220253

TITLE: Pharmacokinetics, disposition and biotransformation of [14C]-radiolabeled valsartan in healthy male volunteers after a single oral dose

AUTHOR(S): Waldmeier, F.; Flesch, G.; Mueller, P.; Winkler, T.; Kriemler, H.-P.; Buehlmayer, P.; De Gasparo, M.

CORPORATE SOURCE: Pharma Res., Ciba-Geigy, Basel, CH-4002, Switz.

SOURCE: Xenobiotica (1997), 27(1), 59-71

CODEN: XENOBH; ISSN: 0049-8254

PUBLISHER: Taylor & Francis

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The disposition of valsartan, a potent angiotensin II receptor antagonist, was investigated in six healthy male volunteers. They each received a single oral dose of 80 mg of a 14C-labeled preparation as a neutral buffered solution. Peak concns. of radioactivity and valsartan in plasma measured 1 h after dosing showed rapid onset of absorption. The results of this study combined with other available data indicate that at least 51% of the dose was absorbed. Valsartan was the predominant radioactive compound in plasma. Elimination of valsartan and radioactivity was fast and multiexponential. β -Half-lives of 6 h were observed. In a terminal elimination phase, low radioactivity levels decreased with a half-life of 81 h. A minor, pharmacol. inactive metabolite (valeryl-4-hydroxy-valsartan; M1) was detected in the plasma at time points later than 2 h after dosing, representing approx. 11% of the AUC(24 h) of plasma radioactivity. The bulk of the dose was excreted within 4 days. The total excretion within 7 days amounted to 99% of dose. Fecal excretion was predominant (86% of dose). Valsartan was largely excreted unchanged (81% of the dose in the excreta). The predominant clearance mechanism appeared to be direct elimination via bile. An inactive metabolite, M1, was formed by oxidative biotransformation and accounted for 9% of the dose in the excreta.

IT 188240-32-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

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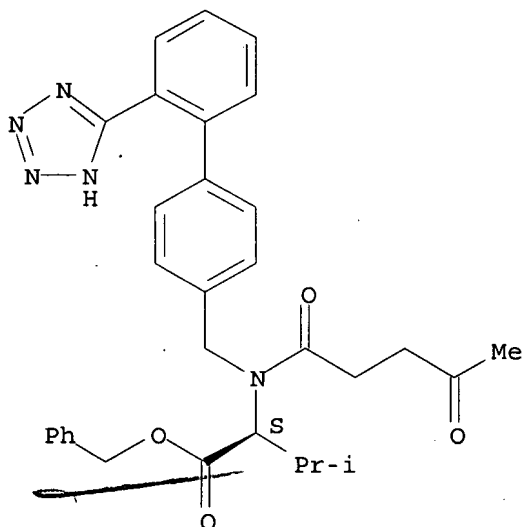
(Reactant or reagent)

(intermediate; pharmacokinetics, disposition and biotransformation of [14C]-radiolabeled valsartan in healthy male volunteers after a single oral dose)

RN 188240-32-6 HCAPLUS

CN L-Valine, N-(1,4-dioxopentyl)-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1992:151772 HCAPLUS

DOCUMENT NUMBER: 116:151772

TITLE: Preparation of [(tetrazolylbiphenyl)methyl]amines and analogs as angiotensin II antagonists

INVENTOR(S): Buehlmayer, Peter; Ostermayer, Franz; Schmidlin, Tibur

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Eur. Pat. Appl., 64 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 443983	A1	19910828	EP 1991-810098	19910212
EP 443983	B1	19960228		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
IL 97219	A	19951208	IL 1991-97219	19910212
AT 134624	T	19960315	AT 1991-810098	19910212
ES 2084801	T3	19960516	ES 1991-810098	19910212
CA 2036427	A1	19910820	CA 1991-2036427	19910215
CA 2036427	C	19981229		
FI 9100747	A	19910820	FI 1991-747	19910215
FI 107921	B1	20011031		
CA 2232775	C	20030610	CA 1991-2232775	19910215
NO 9100630	A	19910820	NO 1991-630	19910218

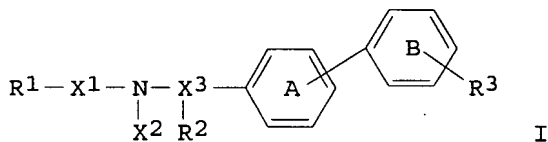
NO 304023	B1	19981012		
AU 9171151	A	19910822	AU 1991-71151	19910218
AU 644844	B2	19931223		
ZA 9101179	A	19911127	ZA 1991-1179	19910218
HU 61271	A2	19921228	HU 1991-537	19910218
HU 219343	B	20010328		
HU 220073	B	20011028	HU 1998-2895	19910218
JP 04235149	A	19920824	JP 1991-108097	19910219
JP 2749458	B2	19980513		
KR 171409	B1	19990201	KR 1991-2622	19910219
US 5399578	A	19950321	US 1992-998755	19921229
FI 9800787	A	19980406	FI 1998-787	19980406
US 5965592	A	19991012	US 1998-124520	19980729

PRIORITY APPLN. INFO.:

CH 1990-518	A	19900219
CH 1990-2234	A	19900705
US 1991-654479	B1	19910213
CA 1991-2036427	A3	19910215
FI 1991-747	A	19910215
HU 1991-537	A	19910218
US 1992-998755	A1	19921229
US 1994-294925	A3	19940824

OTHER SOURCE(S): MARPAT 116:151772

GI



AB Title compds. [I; R1 = (halo- or HO- substituted) (cyclo)alkyl, aralkyl; R2 = (esterified or amidated) carboxy, (acetalized) formyl, amino, 1H-tetrazol-5-yl, pyridyl, (etherified) HO, SOMR; R = H, alkyl; R3 = carboxy, 5-tetrazolyl, SO3H, PO2H2, PO3H2, haloalkylsulfamoyl; X1 = CO, SO2, O2C; X2 = (un)substituted (cyclo)alkylene; X3 = alkylene; rings A, B are optionally substituted; m = 0-2] or their salts, useful as antihypertensives, were prepared Reductive amination of 2'-cyanobiphenyl-4-carbaldehyde by Me L-valine-HCl followed by N-acylation of the product by n-valeryl chloride gave, after chromatog., N-valeryl-N-[(2'-cyanobiphenyl-4-yl)methyl]-L-valine Me ester. This underwent cyclocondensation with Bu3SnN3 to give title compound (S)-N-(1-carboxy-2-methylprop-1-yl)-N-pentanoyl-N-[2'-(1H-tetrazol-5-yl)biphenyl-4-ylmethyl]amine (II). I antagonized binding of 125I-angiotensin II to rat aorta smooth muscle cells with IC50 of about 10 nM. Approx. 120 I were prepared and claimed and tablets containing II were formulated.

IT 137863-20-8P

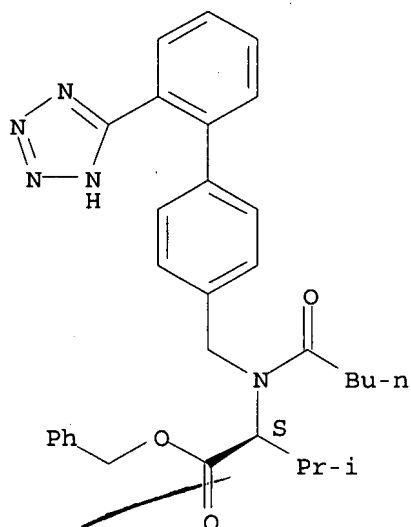
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, in preparation of angiotensin II antagonist)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



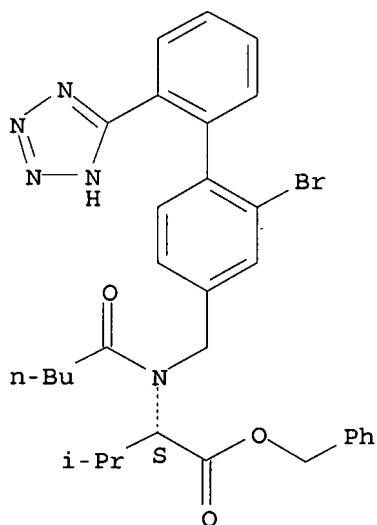
IT 137863-23-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as angiotensin II antagonist)

RN 137863-23-1 HCAPLUS

CN L-Valine, N-[[2-bromo-2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-N-(1-oxopentyl)-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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FILE 'REGISTRY' ENTERED AT 21:09:10 ON 23 AUG 2007

L1 STRUCTURE UPLOADED
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1684924 PROCESSES
3693085 PROCESS
(PROCESS OR PROCESSES)
L6 6 L4 AND PROCESS

=> s l4 and metal hydroxide
1766888 METAL
881930 METALS
2136745 METAL
(METAL OR METALS)
307396 HYDROXIDE
48653 HYDROXIDES
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(HYDROXIDE OR HYDROXIDES)
22723 METAL HYDROXIDE
(METAL(W)HYDROXIDE)
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=> s l6 and metal hydroxide
1766888 METAL
881930 METALS
2136745 METAL
(METAL OR METALS)
307396 HYDROXIDE
48653 HYDROXIDES
330778 HYDROXIDE
(HYDROXIDE OR HYDROXIDES)
22723 METAL HYDROXIDE
(METAL(W)HYDROXIDE)
(L8) 1 L6 AND METAL HYDROXIDE

=> s l6 and valsartan
1519 VALSARTAN
L9 5 L6 AND VALSARTAN

=> s l5 and metal hydroxide
1766888 METAL
881930 METALS
2136745 METAL
(METAL OR METALS)
307396 HYDROXIDE
48653 HYDROXIDES
330778 HYDROXIDE
(HYDROXIDE OR HYDROXIDES)
22723 METAL HYDROXIDE
(METAL(W)HYDROXIDE)
(L10) 1 L5 AND METAL HYDROXIDE

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FILE 'REGISTRY' ENTERED AT 21:09:10 ON 23 AUG 2007

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 6 S L1 SSS FULL

FILE 'HCAPLUS' ENTERED AT 21:09:44 ON 23 AUG 2007

L4 11 S L3

L5 8 S L4 AND VALSARTAN

L6 6 S L4 AND PROCESS

L7 1 S L4 AND METAL HYDROXIDE

L8 1 S L6 AND METAL HYDROXIDE

L9 5 S L6 AND VALSARTAN

L10 1 S L5 AND METAL HYDROXIDE

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L5 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1118698 HCAPLUS

DOCUMENT NUMBER: 145:455017

TITLE: Process for the preparation of valsartan and its intermediates

INVENTOR(S): Kumar, Ashok; Nimbalkar, Manmohan Madhavrao; Barve, Sanjay Govind; Metil, Dattatray Shamrao; Shimpukade, Bharat Dinkar; Kushwaha, Lavkesh; Kelkar, Rahul Suresh

PATENT ASSIGNEE(S): Ipca Laboratories Ltd., India

SOURCE: Eur. Pat. Appl., 16pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1714963	A1	20061025	EP 2006-112734	20060418
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
IN 2005MU00490	A	20051209	IN 2005-MU490	20050419
US 2006281801	A1	20061214	US 2006-405522	20060418
PRIORITY APPLN. INFO.:			IN 2005-MU490	A 20050419

OTHER SOURCE(S): CASREACT 145:455017

AB A process for preparing valsartan comprises: purifying intermediate benzyl valsartan by crystallizing the benzyl valsartan of lower purity from a first solvent which is a ternary mixture comprising a hydrophilic solvent, a non-polar protic solvent, and water; recovering benzyl valsartan from the ternary mixture followed by crystallizing benzyl valsartan from a second solvent comprising a non-polar aprotic solvent or polar aprotic solvent or their mixture; recovering benzyl valsartan substantially free of organotin impurity; and converting said benzyl valsartan by catalytic hydrogenolysis (e.g., using H₂ and Pd/C) into valsartan.

IT 137863-20-8P

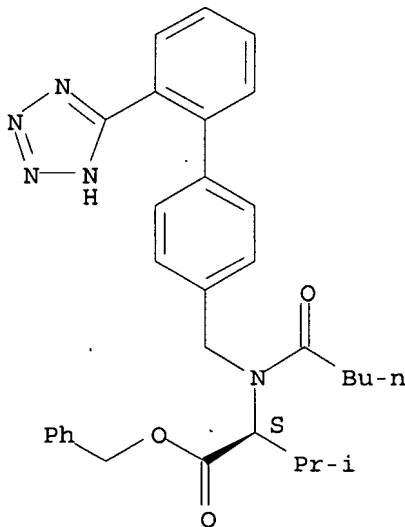
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(process for preparation of valsartan and its intermediates)

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RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:630367 HCAPLUS

DOCUMENT NUMBER: 145:103949

TITLE: Preparation of phenylboronic acid intermediates in the synthesis of valsartan, an angiotensin II receptor antagonist

INVENTOR(S): Rafecas-Jane, Llorenc; Riera-Escale, Antoni; Ecija-Queralt, Marta; Moyano-Baldoire, Albert; Comely, Alex; Casalprim-Castella, Irene

PATENT ASSIGNEE(S): Enantia, S. L., Spain

SOURCE: PCT Int. Appl., 41 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006067216	A2	20060629	WO 2005-EP57104	20051222
WO 2006067216	A3	20060817		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,

CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

EP 2004-106863

A 20041222

OTHER SOURCE(S):

CASREACT 145:103949; MARPAT 145:103949

AB The invention relates to new substituted N-(borylphenylmethyl)valine derivs. p-Y1Y2BC6H4CH2NR2CHR1CHMe2 [Y1, Y2 are independently hydroxy, alkoxy, or (un)substituted phenoxy; or Y1 and Y2 combine to form o-phenylenedioxy or (un)substituted alkylenedioxy; R1 is a group which may be converted into a carboxy group; R2 is H or pentanoyl] which are intermediates in the synthesis of valsartan. The process involves reaction of the N-(borylphenylmethyl)valine derivs. with a (halophenyl)tetrazole compound and is particularly advantageous because it avoids the use of azide derivs. and expensive biphenyl intermediates. Thus, Me N-[[4-(5,5-dimethyl[1,3,2]dioxaborinan-2-yl)phenyl]methyl]-N-pentanoyl-L-valinate (preparation given) was treated with 5-(2-bromophenyl)-1-(triphenylmethyl)-1H-tetrazole and the product treated with 1 M HCl in MeOH and then 10% NaOH to afford valsartan [N-pentanoyl-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-L-valine].

IT 137863-20-8P

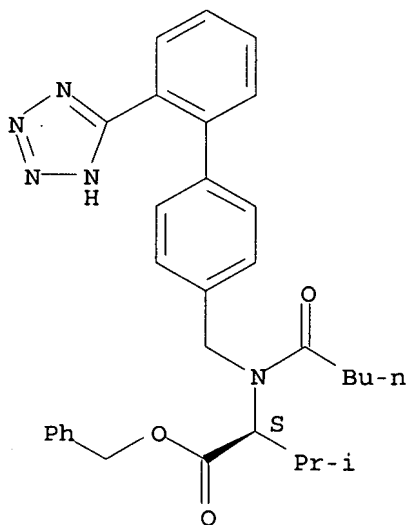
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of phenylboronic acid intermediates in synthesis of valsartan, an angiotensin II receptor antagonist)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:472137 HCAPLUS

DOCUMENT NUMBER: 143:26874

TITLE: Process for the preparation and precipitation purification of valsartan

INVENTOR(S): Kumar, Yatendra; Prasad, Mohan; Lahiri, Saswata; Maheshwari, Nitin; Saxena, Ira

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 12 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005049588	A1	20050602	WO 2004-IB3809	20041122

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

IN 2003DE01446 A 20051125 IN 2003-DE1446 20031121
 PRIORITY APPLN. INFO.: IN 2003-DE1446 A 20031121

AB Valsartan is isolated from its synthesis mixts. by: (A) providing a solution of valsartan in one or more suitable solvent(s); (B) adding one or more antisolvent(s) to the above solution or adding the above solution to one or more antisolvent(s) to form a mixture comprising solid valsartan; and (C) isolating the solid valsartan having a purity of >99 %.

IT 137863-20-8P

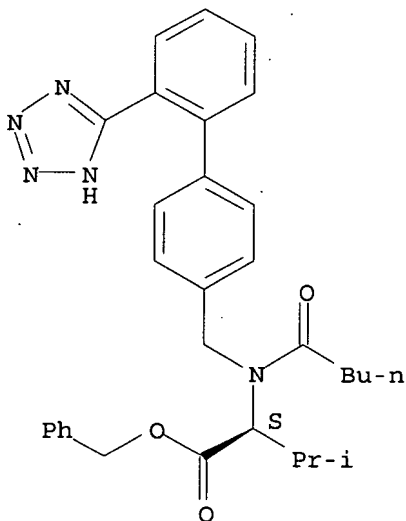
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(in a process for the preparation and precipitation purification of valsartan)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:216812 HCAPLUS

DOCUMENT NUMBER: 142:298118

TITLE: Method for removing the triphenylmethane protecting group from biphenyltetrazoles

INVENTOR(S): Radl, Stanislav; Stach, Jan; Klecan, Ondrej

PATENT ASSIGNEE(S): Zentiva, A.S., Czech Rep.

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXKD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005021535	A2	20050310	WO 2004-CZ51	20040826
WO 2005021535	A3	20050609		
W:		AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW		
RW:		BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
CZ 297016	B6	20060816	CZ 2003-2319	20030827
CA 2536781	A1	20050310	CA 2004-2536781	20040826
EP 1658281	A2	20060524	EP 2004-762303	20040826
R:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, HR		
US 2006287537	A1	20061221	US 2006-569428	20060223
PRIORITY APPLN. INFO.:			CZ 2003-2319	A 20030827
			CZ 2004-733	A 20040616
			WO 2004-CZ51	W 20040826

OTHER SOURCE(S): CASREACT 142:298118; MARPAT 142:298118

AB The trityl protective group is removed from losartan and related compds. by alcoholysis with anhydrous alc. in neutral or slightly basic medium. The method is used to prepare the potassium salts of losartan, irbesartan or valsartan or candesartan cilexetil.

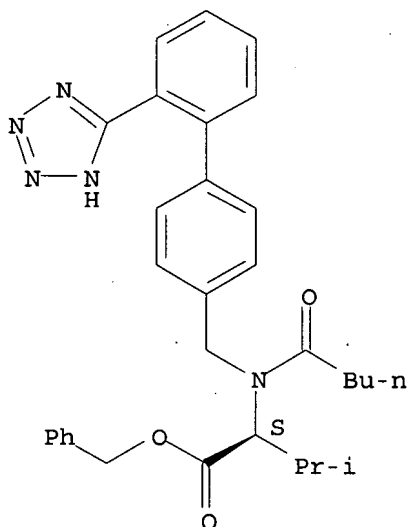
IT 137863-20-8P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(method for removing the triphenylmethane protecting group from biphenyltetrazoles)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1127352 HCAPLUS

DOCUMENT NUMBER: 142:56657

TITLE: Saponification and acid neutralization process for the preparation of valsartan from valsartan benzyl ester

INVENTOR(S): Parthasaradhi Reddy, Bandi; Rathnakar Reddy, Kura; Raji Reddy, Rapolu; Muralidhara Reddy, Dasari

PATENT ASSIGNEE(S): Hetero Drugs Limited, India

SOURCE: PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004111018	A1	20041223	WO 2003-IN218	20030616
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003245037	A1	20050104	AU 2003-245037	20030616
IN 2003CN00944	A	20050422	IN 2003-CN944	20030616
US 2006100443	A1	20060511	US 2005-539811	20050620
PRIORITY APPLN. INFO.:			WO 2003-IN218	A 20030616

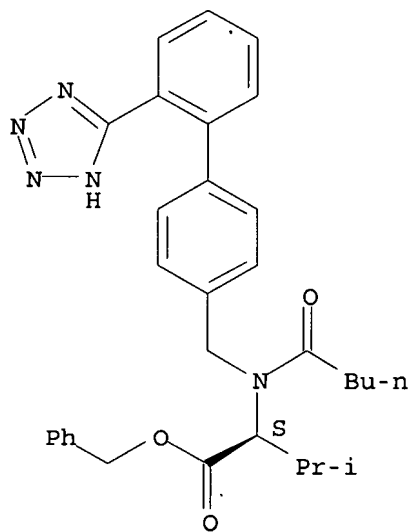
OTHER SOURCE(S): CASREACT 142:56657

AB Valsartan is prepared by the hydrolysis of valsartan benzyl ester with an alkali (e.g., sodium hydroxide), washing with an organic solvent, acidifying with an acid (e.g., hydrochloric acid), and isolating

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valsartan from the reaction mixture
IT 137863-20-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(saponification and acid neutralization process for the preparation of
valsartan from valsartan benzyl ester)
RN 137863-20-8 HCAPLUS
CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-
yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:267315 HCAPLUS
DOCUMENT NUMBER: 140:287711
TITLE: Process for the manufacture of valsartan
INVENTOR(S): Denni-Dischert, Donatienne; Hirt, Hans; Neville, Dan;
Sedelmeier, Gottfried; Schnyder, Anita; Derrien,
Nadine; Kaufmann, Daniel
PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Novartis Pharma G.m.b.H.
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004026847	A1	20040401	WO 2003-EP10543	20030922
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,				
GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT,				
LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PG, PH, PL, PT, RO,				
RU, SC, SE, SG, SK, SY, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN,				
YU, ZA, ZW				
RW: AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,				

DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR

CA 2502629	A1	20040401	CA 2003-2502629	20030922
AU 2003270241	A1	20040408	AU 2003-270241	20030922
BR 2003014132	A	20050628	BR 2003-14132	20030922
EP 1546122	A1	20050629	EP 2003-750599	20030922

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

CN 1688556	A	20051026	CN 2003-824514	20030922
JP 2006502178	T	20060119	JP 2004-537146	20030922
ZA 2005002159	A	20050921	ZA 2005-2159	20050315
IN 2005CN00421	A	20070427	IN 2005-CN421	20050318
MX 2005PA03140	A	20050622	MX 2005-PA3140	20050322
NO 2005001970	A	20050616	NO 2005-1970	20050422
US 2006069268	A1	20060330	US 2005-528323	20050505

PRIORITY APPLN. INFO.:

GB 2002-22056	A	20020923
WO 2003-EP10543	W	20030922

OTHER SOURCE(S): MARPAT 140:287711

AB A process for the manufacture of valsartan is reported. Thus,
L-valine was treated with 2'-(1H-tetrazol-5-yl)biphenyl-4-carboxaldehyde
to give the imine which was reduced with NaBH₄ and acylated with BuCOCl.

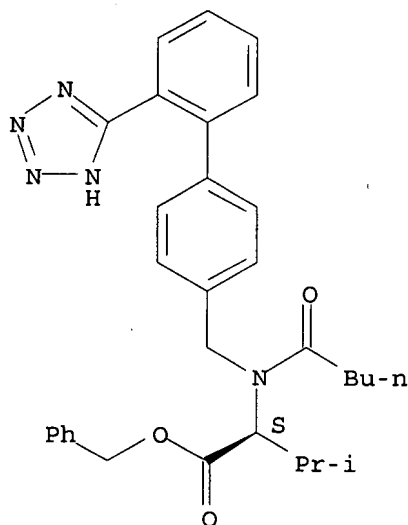
IT 137863-20-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(process for the manufacture of valsartan)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-
yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:912999 HCAPLUS

DOCUMENT NUMBER: 139:391358

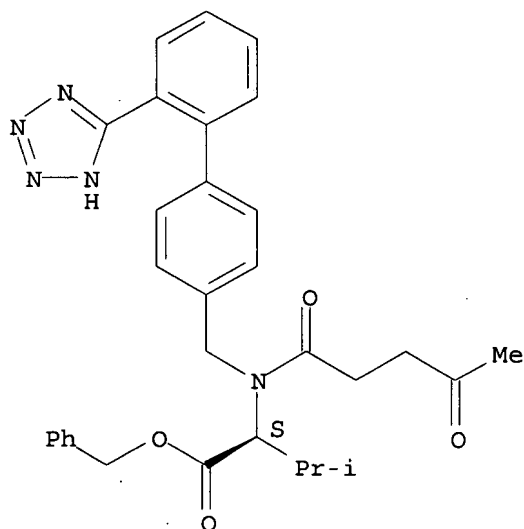
TITLE: Use of valsartan or its metabolite to
inhibit platelet aggregation

10539811.trn

INVENTOR(S): Malinin, Alex; Serebruany, Victor L.; Webb, Randy Lee
PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Novartis Pharma G.m.b.H.
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003094915	A1	20031120	WO 2003-EP4997	20030513
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SE, SG, SK, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW				
RW: AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
AU 2003267447	A1	20031111	AU 2003-267447	20030513
CA 2482541	A1	20031120	CA 2003-2482541	20030513
BR 2003010018	A	20050215	BR 2003-10018	20030513
EP 1505965	A1	20050216	EP 2003-749892	20030513
EP 1505965	B1	20060802		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1652774	A	20050810	CN 2003-810864	20030513
JP 2005529913	T	20051006	JP 2004-503001	20030513
AT 334677	T	20060815	AT 2003-749892	20030513
NZ 536295	A	20061222	NZ 2003-536295	20030513
ES 2268403	T3	20070316	ES 2003-3749892	20030513
ZA 2004007578	A	20060726	ZA 2004-7578	20040921
MX 2004PA11282	A	20050125	MX 2004-PA11282	20041112
US 2005197372	A1	20050908	US 2004-514299	20041112
NO 2004005245	A	20041130	NO 2004-5245	20041130
HK 1074395	A1	20070525	HK 2005-106187	20050721
PRIORITY APPLN. INFO.:			US 2002-380373P	P 20020514
			US 2002-395014P	P 20020711
			WO 2003-EP4997	W 20030513
AB	The invention provides a method for inhibiting platelet aggregation, comprising administering a therapeutically effective amount of an angiotensin II receptor blocker or metabolite thereof, especially valsartan or its metabolite, valeryl 4-hydroxyvalsartan (preparation described). Conditions to be treated by inhibition of platelet aggregation include acute myocardial infarction, ischemic stroke, angina pectoris, acute coronary syndromes, TIA (transient ischemic attacks, or acute cerebrovascular syndromes), heart failure, chest pain of ischemic etiol., syndrome X, thromboembolism, pulmonary hypertension, diabetes mellitus, peripheral vascular disease, deep vein thrombosis, arterial thrombosis of any vessel, and catheter thrombotic occlusion or reocclusion.			
IT	188240-32-6P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (valsartan or metabolite to inhibit platelet aggregation)			
RN	188240-32-6 HCAPLUS			
CN	L-Valine, N-(1,4-dioxopentyl)-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)			

Absolute stereochemistry.



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:108051 HCAPLUS

DOCUMENT NUMBER: 126:220253

TITLE: Pharmacokinetics, disposition and biotransformation of [14C]-radiolabeled valsartan in healthy male volunteers after a single oral dose

AUTHOR(S): Waldmeier, F.; Flesch, G.; Mueller, P.; Winkler, T.; Kriemler, H.-P.; Buehlmayer, P.; De Gasparo, M.

CORPORATE SOURCE: Pharma Res., Ciba-Geigy, Basel, CH-4002, Switz.

SOURCE: Xenobiotica (1997), 27(1), 59-71

CODEN: XENOBH; ISSN: 0049-8254

PUBLISHER: Taylor & Francis

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The disposition of valsartan, a potent angiotensin II receptor antagonist, was investigated in six healthy male volunteers. They each received a single oral dose of 80 mg of a 14C-labeled preparation as a neutral buffered solution. Peak concns. of radioactivity and valsartan in plasma measured 1 h after dosing showed rapid onset of absorption. The results of this study combined with other available data indicate that at least 51% of the dose was absorbed. Valsartan was the predominant radioactive compound in plasma. Elimination of valsartan and radioactivity was fast and multiexponential. β -Half-lives of 6 h were observed. In a terminal elimination phase, low radioactivity levels decreased with a half-life of 81 h. A minor, pharmacol. inactive metabolite (valeryl-4-hydroxy-valsartan; M1) was detected in the plasma at time points later than 2 h after dosing, representing approx. 11% of the AUC(24 h) of plasma radioactivity. The bulk of the dose was excreted within 4 days. The total excretion within 7 days amounted to 99% of dose. Fecal excretion was predominant (86% of dose). Valsartan was largely excreted unchanged (81% of the dose in the excreta). The predominant clearance mechanism appeared to be direct elimination via bile. An inactive metabolite, M1, was formed by oxidative biotransformation and accounted for 9% of the dose in the

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excreta.

IT 188240-32-6P

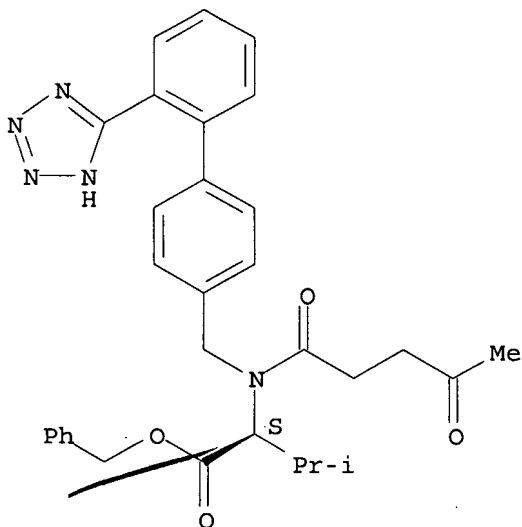
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; pharmacokinetics, disposition and biotransformation of [14C]-radiolabeled valsartan in healthy male volunteers after a single oral dose)

RN 188240-32-6 HCAPLUS

CN L-Valine, N-(1,4-dioxopentyl)-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d 16 ibib abs hitstr tot

L6 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1118698 HCAPLUS

DOCUMENT NUMBER: 145:455017

TITLE: Process for the preparation of valsartan and its intermediates

INVENTOR(S): Kumar, Ashok; Nimbalkar, Manmohan Madhavrao; Barve, Sanjay Govind; Metil, Dattatray Shamrao; Shimpukade, Bharat Dinkar; Kushwaha, Lavkesh; Kelkar, Rahul Suresh

PATENT ASSIGNEE(S): Ipca Laboratories Ltd., India

SOURCE: Eur. Pat. Appl., 16pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1714963	A1	20061025	EP 2006-112734	20060418
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				

IN 2005MU00490 A 20051209 IN 2005-MU490 20050419
US 2006281801 A1 20061214 US 2006-405522 20060418
PRIORITY APPLN. INFO.: IN 2005-MU490 A 20050419
OTHER SOURCE(S): CASREACT 145:455017

AB A process for preparing valsartan comprises: purifying intermediate benzyl valsartan by crystallizing the benzyl valsartan of lower purity from a first solvent which is a ternary mixture comprising a hydrophilic solvent, a non-polar protic solvent, and water; recovering benzyl valsartan from the ternary mixture followed by crystallizing benzyl valsartan from a second solvent

comprising a non-polar aprotic solvent or polar aprotic solvent or their mixture; recovering benzyl valsartan substantially free of organotin impurity; and converting said benzyl valsartan by catalytic hydrogenolysis (e.g., using H₂ and Pd/C) into valsartan.

IT 137863-20-8P

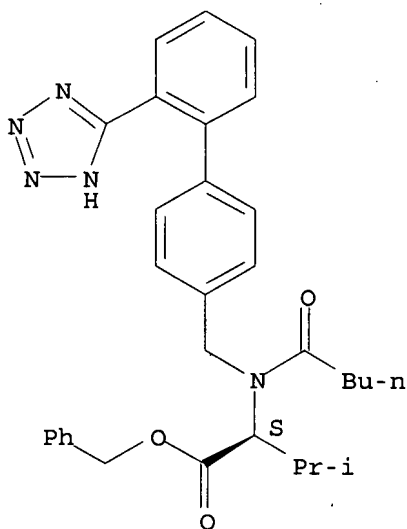
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

(process for preparation of valsartan and its intermediates)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:630367 HCAPLUS

DOCUMENT NUMBER: 145:103949

TITLE: Preparation of phenylboronic acid intermediates in the synthesis of valsartan, an angiotensin II receptor antagonist

INVENTOR(S): Rafecas-Jane, Llorenç; Riera-Escale, Antoni; Ecija-Queralt, Marta; Moyano-Baldoire, Albert; Comely, Alex; Casalprim-Castella, Irene

PATENT ASSIGNEE(S): Enantia, S. L., Spain

SOURCE: PCT Int. Appl., 41 pp.

CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006067216	A2	20060629	WO-2005-EP57104	20051222
WO 2006067216	A3	20060817		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: EP 2004-106863 A 20041222

OTHER SOURCE(S): CASREACT 145:103949; MARPAT 145:103949

AB The invention relates to new substituted N-(borylphenylmethyl)valine derivs. p-Y1Y2BC6H4CH2NR2CHR1CHMe2 [Y1, Y2 are independently hydroxy, alkoxy, or (un)substituted phenoxy; or Y1 and Y2 combine to form o-phenylenedioxy or (un)substituted alkylenedioxy; R1 is a group which may be converted into a carboxy group; R2 is H or pentanoyl] which are intermediates in the synthesis of valsartan. The process involves reaction of the N-(borylphenylmethyl)valine derivs. with a (halophenyl)tetrazole compound and is particularly advantageous because it avoids the use of azide derivs. and expensive biphenyl intermediates. Thus, Me N-[[4-(5,5-dimethyl[1,3,2]dioxaborinan-2-yl)phenyl]methyl]-N-pentanoyl-L-valinate (preparation given) was treated with 5-(2-bromophenyl)-1-(triphenylmethyl)-1H-tetrazole and the product treated with 1 M HCl in MeOH and then 10% NaOH to afford valsartan [N-pentanoyl-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-L-valine].

IT 137863-20-8P

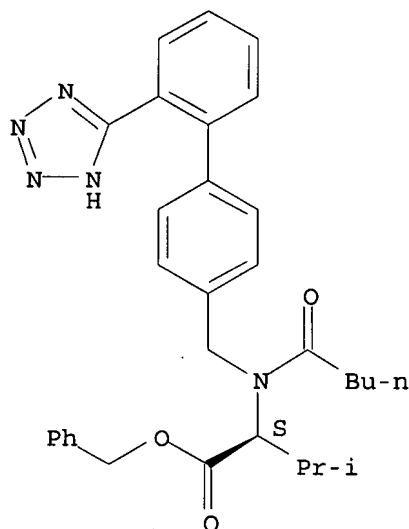
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of phenylboronic acid intermediates in synthesis of valsartan, an angiotensin II receptor antagonist)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:472137 HCAPLUS

DOCUMENT NUMBER: 143:26874

TITLE: Process for the preparation and precipitation purification of valsartan

INVENTOR(S): Kumar, Yatendra; Prasad, Mohan; Lahiri, Saswata; Maheshwari, Nitin; Saxena, Ira

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 12 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005049588	A1	20050602	WO 2004-IB3809	20041122

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

IN 2003DE01446 A 20051125 IN 2003-DE1446 20031121

PRIORITY APPLN. INFO.: IN 2003-DE1446 A 20031121

AB Valsartan is isolated from its synthesis mixts. by: (A) providing a solution of valsartan in one or more suitable solvent(s); (B) adding one or more antisolvent(s) to the above solution or adding the above solution to one or more

antisolvent(s) to form a mixture comprising solid valsartan; and (C) isolating the solid valsartan having a purity of >99 %.

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IT 137863-20-8P

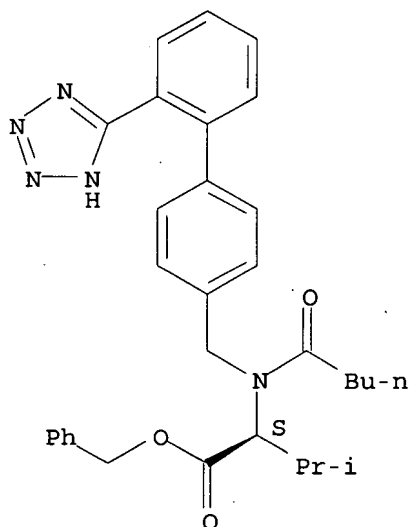
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(in a process for the preparation and precipitation purification of valsartan)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6' ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:120707 HCAPLUS

DOCUMENT NUMBER: 142:191264

TITLE: Preparation of nitro derivatives of heterocyclic compounds as angiotensin II receptor blockers for therapeutic use

INVENTOR(S): Almirante, Nicoletta; Del Soldato, Piero; Ongini, Ennio

PATENT ASSIGNEE(S): Nicox S.A., Fr.

SOURCE: PCT Int. Appl., 104 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005011646	A2	20050210	WO 2004-EP51550	20040720
WO 2005011646	A3	20050421		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,

TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
 SN, TD, TG

AU 2004260830 A1 20050210 AU 2004-260830 20040720
 CA 2534451 A1 20050210 CA 2004-2534451 20040720
 EP 1653950 A2 20060510 EP 2004-766269 20040720

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK

CN 1832742 A 20060913 CN 2004-80022483 20040720
 BR 2004013028 A 20061003 BR 2004-13028 20040720
 JP 2007500684 T 20070118 JP 2006-521571 20040720
 AU 2005263655 A1 20060126 AU 2005-263655 20050202
 CA 2574666 A1 20060126 CA 2005-2574666 20050202
 WO 2006008196 A1 20060126 WO 2005-EP50459 20050202

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
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 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
 SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,
 CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM,
 KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG,
 KZ, MD, RU, TJ, TM

EP 1778617 A1 20070502 EP 2005-707928 20050202

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA,
 HR, LV, MK, YU

CN 1984871 A 20070620 CN 2005-80024051 20050202
 US 2006276523 A1 20061207 US 2006-566292 20060127
 MX 2006PA01263 A 20060411 MX 2006-PA1263 20060131
 IN 2006CN00674 A 20070608 IN 2006-CN674 20060223
 NO 2006000900 A 20060224 NO 2006-900 20060224

PRIORITY APPLN. INFO.: EP 2003-102379 A 20030731
 WO 2004-EP51550 W 20040720
 WO 2005-EP50459 W 20050202

OTHER SOURCE(S): CASREACT 142:191264; MARPAT 142:191264

AB Angiotensin II receptor blocker nitro derivs. of formula (I): R-(Y-ONO₂)s
 (I) having wider pharmacol. activity and enhanced tolerability are
 claimed. They can be employed for treating cardiovascular, renal and
 chronic liver diseases and inflammatory processes.

IT 838876-86-1 838876-90-7 838876-94-1

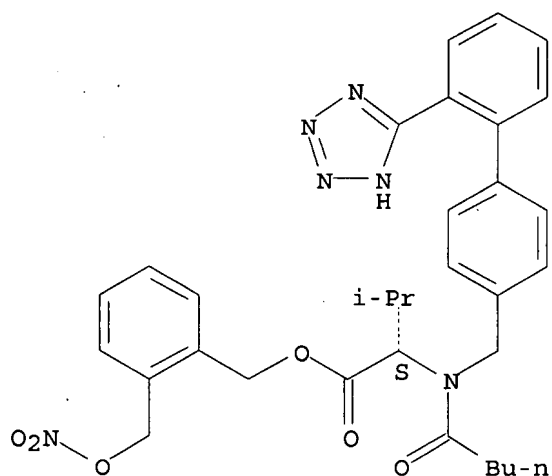
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)

(preparation of nitro derivs. of heterocyclic compds. as angiotensin II
 receptor blockers for therapeutic use)

RN 838876-86-1 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-
 yl]methyl]-, [2-[(nitrooxy)methyl]phenyl]methyl ester (9CI) (CA INDEX
 NAME)

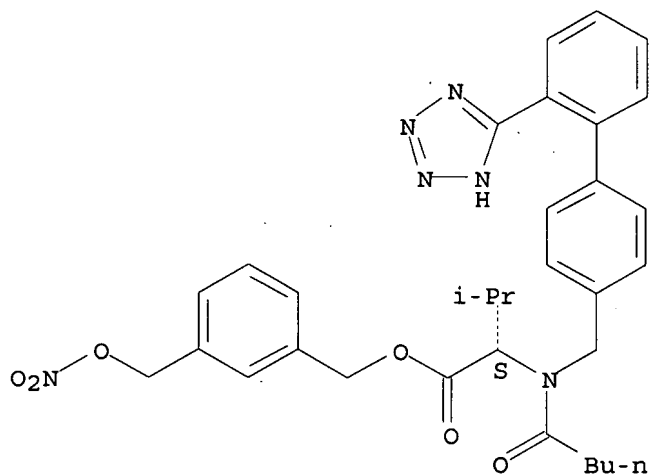
Absolute stereochemistry.



RN 838876-90-7 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, [3-[(nitrooxy)methyl]phenyl]methyl ester (9CI) (CA INDEX NAME)

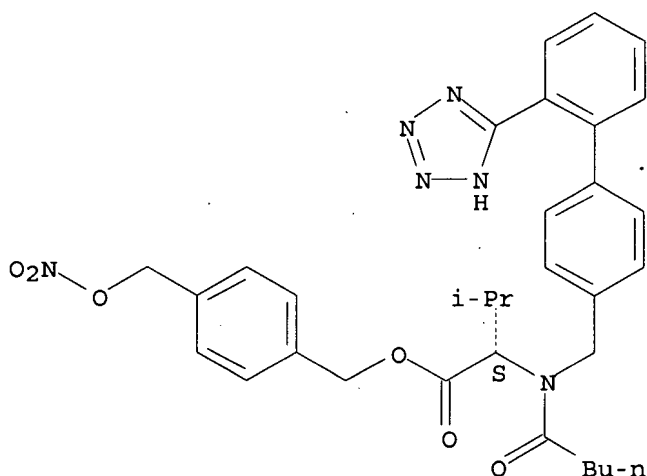
Absolute stereochemistry.



RN 838876-94-1 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, [4-[(nitrooxy)methyl]phenyl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:1127352 HCAPLUS
 DOCUMENT NUMBER: 142:56657
 TITLE: Saponification and acid neutralization process
 for the preparation of valsartan from valsartan benzyl
 ester
 INVENTOR(S): Parthasaradhi Reddy, Bandi; Rathnakar Reddy, Kura;
 Raji Reddy, Rapolu; Muralidhara Reddy, Dasari
 PATENT ASSIGNEE(S): Hetero Drugs Limited, India
 SOURCE: ~~PCT~~ Int. Appl., 15 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004111018	A1	20041223	WO 2003-IN218	20030616
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003245037	A1	20050104	AU 2003-245037	20030616
IN 2003CN00944	A	20050422	IN 2003-CN944	20030616
US 2006100443	A1	20060511	US 2005-539811	20050620
PRIORITY APPLN. INFO.:			WO 2003-IN218	A 20030616

OTHER SOURCE(S): CASREACT 142:56657

AB Valsartan is prepared by the hydrolysis of valsartan benzyl ester with an
 alkali (e.g., sodium hydroxide), washing with an organic solvent, acidifying
 with an acid (e.g., hydrochloric acid), and isolating valsartan from the
 reaction mixture
 IT 137863-20-8

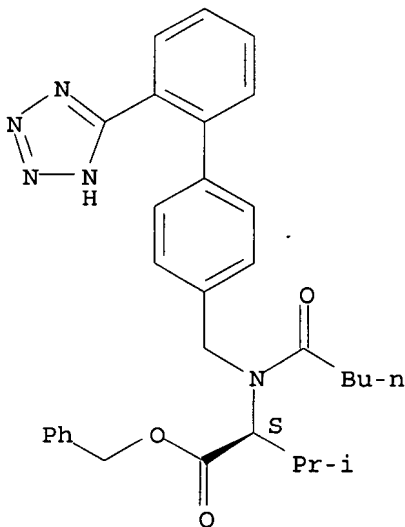
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RL: RCT (Reactant); RACT (Reactant or reagent)
(saponification and acid neutralization process for the preparation of
valsartan from valsartan benzyl ester)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:267315 HCAPLUS

DOCUMENT NUMBER: 140:287711

TITLE: Process for the manufacture of valsartan

INVENTOR(S): Denni-Dischert, Donatienne; Hirt, Hans; Neville, Dan; Sedelmeier, Gottfried; Schnyder, Anita; Derrien, Nadine; Kaufmann, Daniel

PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Novartis Pharma G.m.b.H.

SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004026847	A1	20040401	WO 2003-EP10543	20030922
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SY, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW			
RW:	AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR			

CA 2502629	A1	20040401	CA 2003-2502629	20030922
AU 2003270241	A1	20040408	AU 2003-270241	20030922
BR 2003014132	A	20050628	BR 2003-14132	20030922
EP 1546122	A1	20050629	EP 2003-750599	20030922
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1688556	A	20051026	CN 2003-824514	20030922
JP 2006502178	T	20060119	JP 2004-537146	20030922
ZA 2005002159	A	20050921	ZA 2005-2159	20050315
IN 2005CN00421	A	20070427	IN 2005-CN421	20050318
MX 2005PA03140	A	20050622	MX 2005-PA3140	20050322
NO 2005001970	A	20050616	NO 2005-1970	20050422
US 2006069268	A1	20060330	US 2005-528323	20050505
PRIORITY APPLN. INFO.:			GB 2002-22056	A 20020923
			WO 2003-EP10543	W 20030922

OTHER SOURCE(S): MARPAT 140:287711

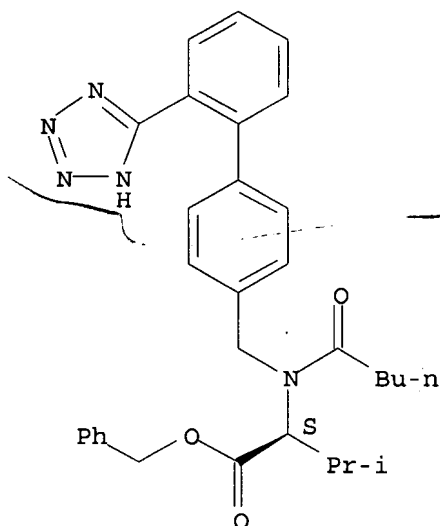
AB A process for the manufacture of valsartan is reported. Thus, L-valine was treated with 2'-(1H-tetrazol-5-yl)biphenyl-4-carboxaldehyde to give the imine which was reduced with NaBH₄ and acylated with BuCOCl.

IT 137863-20-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (process for the manufacture of valsartan)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L7 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1127352 HCAPLUS

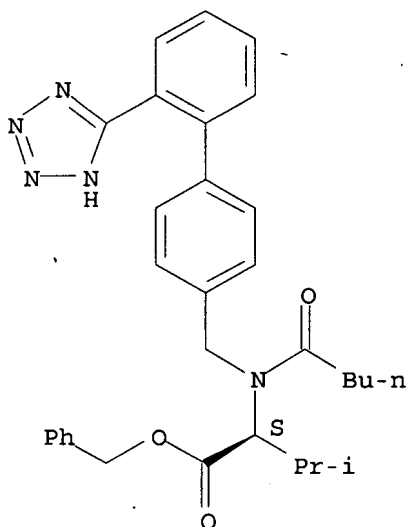
DOCUMENT NUMBER: 142:56657

TITLE: Saponification and acid neutralization process for the

preparation of valsartan from valsartan benzyl ester
 INVENTOR(S): Parthasarathi Reddy, Bandi; Rathnakar Reddy, Kura;
 PATENT ASSIGNEE(S): Raji Reddy, Rapolu; Muralidhara Reddy, Dasari
 SOURCE: Hetero Drugs Limited, India
 PCT Int. Appl., 15 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004111018	A1	2004-12-23	WO 2003-IN218	20030616
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003245037	A1	20050104	AU 2003-245037	20030616
IN 2003CN00944	A	20050422	IN 2003-CN944	20030616
US 2006100443	A1	20060511	US 2005-539811	20050620
PRIORITY APPLN. INFO.:			WO 2003-IN218	A 20030616
OTHER SOURCE(S): CASREACT 142:56657				
AB Valsartan is prepared by the hydrolysis of valsartan benzyl ester with an alkali (e.g., sodium hydroxide), washing with an organic solvent, acidifying with an acid (e.g., hydrochloric acid), and isolating valsartan from the reaction mixture				
IT 137863-20-8				
RL: RCT (Reactant); RACT (Reactant or reagent) (saponification and acid neutralization process for the preparation of valsartan from valsartan benzyl ester)				
RN 137863-20-8 HCAPLUS				
CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)				

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 18 ibib abs hitstr tot

L8 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1127352 HCAPLUS

DOCUMENT NUMBER: 142:56657

TITLE: Saponification and acid neutralization process for the preparation of valsartan from valsartan benzyl ester

INVENTOR(S): Parthasaradhi Reddy, Bandi; Rathnakar Reddy, Kura; Raji Reddy, Rapolu; Muralidhara Reddy, Dasari

PATENT ASSIGNEE(S): Hetero Drugs Limited, India

SOURCE: PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004111018	A1	20041223	WO 2003-IN218	20030616
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003245037	A1	20050104	AU 2003-245037	20030616
IN 2003CN00944	A	20050422	IN 2003-CN944	20030616
US 2006100443	A1	20060511	US 2005-539811	20050620

10539811.trn

PRIORITY APPLN. INFO.:

WO 2003-IN218

A 20030616

OTHER SOURCE(S): CASREACT 142:56657

AB Valsartan is prepared by the hydrolysis of valsartan benzyl ester with an alkali (e.g., sodium hydroxide), washing with an organic solvent, acidifying with an acid (e.g., hydrochloric acid), and isolating valsartan from the reaction mixture

IT 137863-20-8

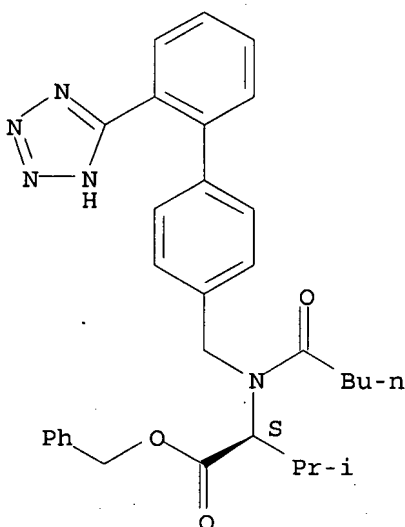
RL: RCT (Reactant); RACT (Reactant or reagent)

(saponification and acid neutralization process for the preparation of valsartan from valsartan benzyl ester)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 19 ibib abs hitstr tot

L9 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1118698 HCAPLUS

DOCUMENT NUMBER: 145:455017

TITLE: Process for the preparation of valsartan and its intermediates

INVENTOR(S): Kumar, Ashok; Nimbalkar, Manmohan Madhavrao; Barve, Sanjay Govind; Metil, Dattatray Shamrao; Shimpukade, Bharat Dinkar; Kushwaha, Lavkesh; Kelkar, Rahul Suresh

PATENT ASSIGNEE(S): Ipca Laboratories Ltd., India

SOURCE: Eur. Pat. Appl., 16pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

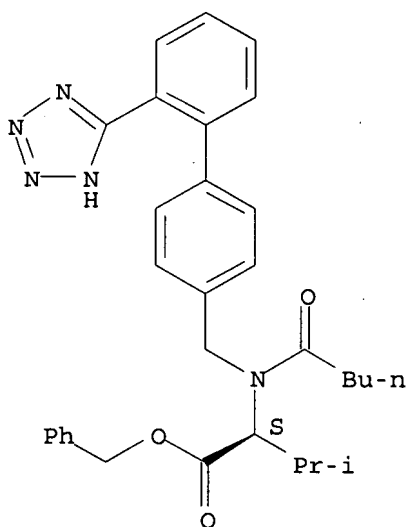
DATE

08/23/2007

Page 45

 EP 1714963 A1 20061025 EP 2006-112734 20060418
 R: AT, BE, CH, DE, DK, ~~ES~~, FR, GB, GR, IT, LI, LU, NL, ~~SE~~, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,
 BA, HR, IS, YU
 IN 2005MU00490 A 20051209 IN 2005-MU490 20050419
 US 2006281801 A1 20061214 US 2006-405522 20060418
 PRIORITY APPLN. INFO.: IN 2005-MU490 A 20050419
 OTHER SOURCE(S): CASREACT 145:455017
 AB A process for preparing valsartan comprises: purifying
 intermediate benzyl valsartan by crystallizing the benzyl
 valsartan of lower purity from a first solvent which is a ternary
 mixture comprising a hydrophilic solvent, a non-polar protic solvent, and
 water; recovering benzyl valsartan from the ternary mixture
 followed by crystallizing benzyl valsartan from a second solvent
 comprising a non-polar aprotic solvent or polar aprotic solvent or their
 mixture; recovering benzyl valsartan substantially free of
 organotin impurity; and converting said benzyl valsartan by
 catalytic hydrogenolysis (e.g., using H₂ and Pd/C) into valsartan
 IT 137863-20-8P
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 PROC (Process); RACT (Reactant or reagent)
 (process for preparation of valsartan and its
 intermediates)
 RN 137863-20-8 HCAPLUS
 CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-
 yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:630367 HCAPLUS

DOCUMENT NUMBER: 145:103949

TITLE: Preparation of phenylboronic acid intermediates in the

synthesis of valsartan, an angiotensin II
receptor antagonist

INVENTOR(S): Rafecas-Jane, Llorenç; Riera-Escale, Antoni;
Ecija-Queralt, Marta; Moyano-Baldoire, Albert; Comely,
Alex; Casalprim-Castella, Irene

PATENT ASSIGNEE(S): Enantia, S. L., Spain

SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006067216	A2	20060629	WO 2005-EP57104	20051222
WO 2006067216	A3	20060817		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: EP 2004-106863 A 20041222

OTHER SOURCE(S): CASREACT 145:103949; MARPAT 145:103949

AB The invention relates to new substituted N-(borylphenylmethyl)valine
derivs. p-Y1Y2BC6H4CH2NR2CHR1CHMe2 [Y1, Y2 are independently hydroxy,
alkoxy, or (un)substituted phenoxy; or Y1 and Y2 combine to form
o-phenylenedioxy or (un)substituted alkylendioxy; R1 is a group which may
be converted into a carboxy group; R2 is H or pentanoyl] which are
intermediates in the synthesis of valsartan. The
process involves reaction of the N-(borylphenylmethyl)valine
derivs. with a (halophenyl)tetrazole compound and is particularly
advantageous because it avoids the use of azide derivs. and expensive
biphenyl intermediates. Thus, Me N-[[4-(5,5-dimethyl[1,3,2]dioxaborinan-2-
yl)phenyl]methyl]-N-pentanoyl-L-valinate (preparation given) was treated with
5-(2-bromophenyl)-1-(triphenylmethyl)-1H-tetrazole and the product treated
with 1 M HCl in MeOH and then 10% NaOH to afford valsartan
[N-pentanoyl-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-L-
valine].

IT 137863-20-8P

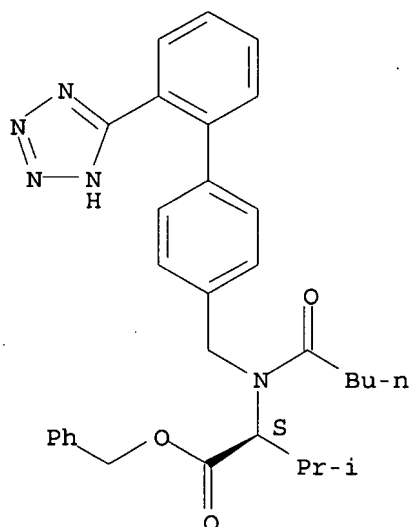
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation of phenylboronic acid intermediates in synthesis of
valsartan, an angiotensin II receptor antagonist)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-
yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:472137 HCAPLUS

DOCUMENT NUMBER: 143:26874

TITLE: Process for the preparation and precipitation purification of valsartan

INVENTOR(S): Kumar, Yatendra; Prasad, Mohan; Lahiri, Saswata; Maheshwari, Nitin; Saxena, Ira

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 12 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005049588	A1	20050602	WO 2004-IB3809	20041122

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

IN 2003DE01446	A	20051125	IN 2003-DE1446	20031121
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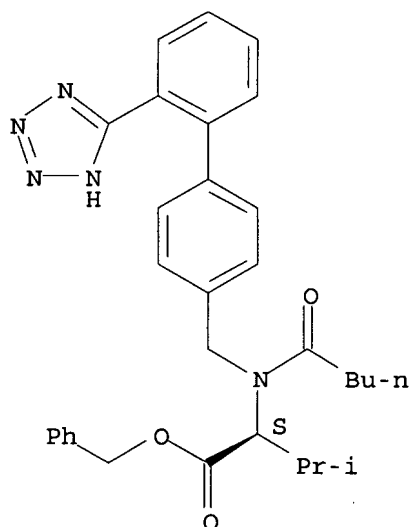
PRIORITY APPLN. INFO.: IN 2003-DE1446 A 20031121

AB Valsartan is isolated from its synthesis mixts. by: (A) providing a solution of valsartan in one or more suitable solvent(s); (B) adding one or more antisolvent(s) to the above solution or adding the above solution to one or more antisolvent(s) to form a mixture comprising solid valsartan; and (C) isolating the solid valsartan having a purity of >99 %.

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IT 137863-20-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(in a process for the preparation and precipitation purification of
valsartan)
RN 137863-20-8 HCAPLUS
CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-
yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L9 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1127352 HCAPLUS

DOCUMENT NUMBER: 142:56657

TITLE: Saponification and acid neutralization process
for the preparation of valsartan from
valsartan benzyl ester

INVENTOR(S): Parthasaradhi Reddy, Bandi; Rathnakar Reddy, Kura;
Raji Reddy, Rapolu; Muralidhara Reddy, Dasari

PATENT ASSIGNEE(S): Hetero Drugs Limited, India

SOURCE: PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004111018	A1	20041223	WO-2003-IN218	20030616
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				

10539811.trn

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003245037	A1	20050104	AU 2003-245037	20030616
IN 2003CN00944	A	20050422	IN 2003-CN944	20030616
US 2006100443	A1	20060511	US 2005-539811	20050620

PRIORITY APPLN. INFO.: WO 2003-IN218 A 20030616

OTHER SOURCE(S) : CASREACT 142:56657

AB Valsartan is prepared by the hydrolysis of valsartan benzyl ester with an alkali (e.g., sodium hydroxide), washing with an organic solvent, acidifying with an acid (e.g., hydrochloric acid), and isolating valsartan from the reaction mixture

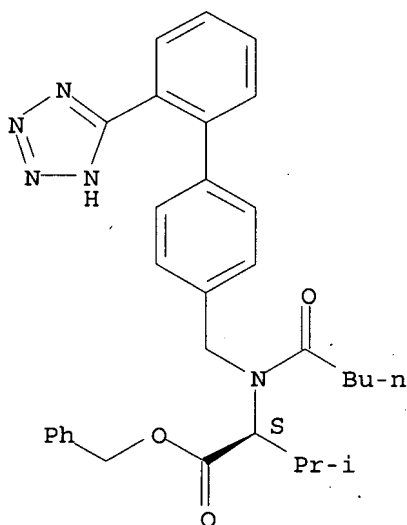
IT 137863-20-8

RL: RCT (Reactant); RACT (Reactant or reagent)
(saponification and acid neutralization process for the preparation of valsartan from valsartan benzyl ester)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:267315 HCAPLUS

DOCUMENT NUMBER: 140:287711

TITLE: Process for the manufacture of
valsartan

INVENTOR(S): Denni-Dischert, Donatienne; Hirt, Hans; Neville, Dan;
Sedelmeier, Gottfried; Schnyder, Anita; Derrien,
Nadine; Kaufmann, Daniel

PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Novartis Pharma G.m.b.H.

SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004026847	A1	20040401	WO 2003-EP10543	20030922
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SY, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW				
RW: AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
CA 2502629	A1	20040401	CA 2003-2502629	20030922
AU 2003270241	A1	20040408	AU 2003-270241	20030922
BR 2003014132	A	20050628	BR 2003-14132	20030922
EP 1546122	A1	20050629	EP 2003-750599	20030922
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1688556	A	20051026	CN 2003-824514	20030922
JP 2006502178	T	20060119	JP 2004-537146	20030922
ZA 2005002159	A	20050921	ZA 2005-2159	20050315
IN 2005CN00421	A	20070427	IN 2005-CN421	20050318
MX 2005PA03140	A	20050622	MX 2005-PA3140	20050322
NO 2005001970	A	20050616	NO 2005-1970	20050422
US 2006069268	A1	20060330	US 2005-528323	20050505
PRIORITY APPLN. INFO.:			GB 2002-22056	A 20020923
			WO 2003-EP10543	W 20030922

OTHER SOURCE(S): MARPAT 140:287711

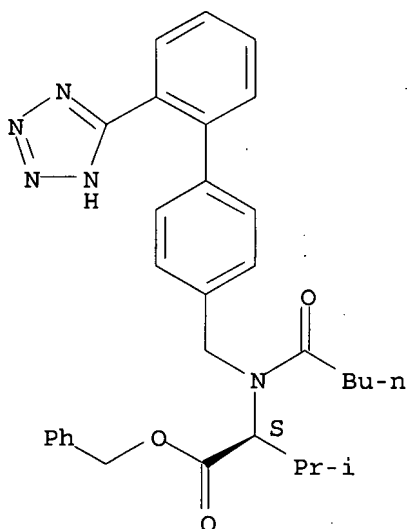
AB A process for the manufacture of valsartan is reported. Thus, L-valine was treated with 2'-(1H-tetrazol-5-yl)biphenyl-4-carboxaldehyde to give the imine which was reduced with NaBH₄ and acylated with BuCOCl.

IT 137863-20-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (process for the manufacture of valsartan)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl)methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l10 ibib abs hitstr tot

L10 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1127352 HCAPLUS

DOCUMENT NUMBER: 142:56657

TITLE: Saponification and acid neutralization process for the preparation of valsartan from valsartan benzyl ester

INVENTOR(S): Parthasaradhi Reddy, Bandi; Rathnakar Reddy, Kura; Raji Reddy, Rapolu; Muralidhara Reddy, Dasari

PATENT ASSIGNEE(S): Hetero Drugs Limited, India

SOURCE: PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004111018	A1	20041223	WO 2003-IN218	20030616
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003245037	A1	20050104	AU 2003-245037	20030616
IN 2003CN00944	A	20050422	IN 2003-CN944	20030616
US 2006100443	A1	20060511	US 2005-539811	20050620

10539811.trn

PRIORITY APPLN. INFO.:

WO 2003-IN218

A 20030616

OTHER SOURCE(S): CASREACT 142:56657

AB Valsartan is prepared by the hydrolysis of valsartan benzyl ester with an alkali (e.g., sodium hydroxide), washing with an organic solvent, acidifying with an acid (e.g., hydrochloric acid), and isolating valsartan from the reaction mixture

IT 137863-20-8

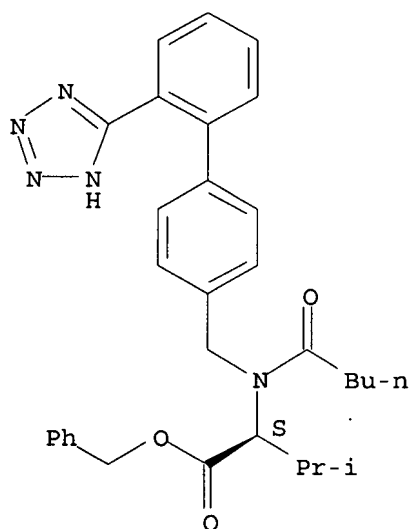
RL: RCT (Reactant); RACT (Reactant or reagent)

(saponification and acid neutralization process for the preparation of valsartan from valsartan benzyl ester)

RN 137863-20-8 HCAPLUS

CN L-Valine, N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, phenylmethyl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 21:08:56 ON 23 AUG 2007)

FILE 'REGISTRY' ENTERED AT 21:09:10 ON 23 AUG 2007

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 6 S L1 SSS FULL

FILE 'HCAPLUS' ENTERED AT 21:09:44 ON 23 AUG 2007

L4 11 S L3

L5 8 S L4 AND VALSARTAN

L6 6 S L4 AND PROCESS

L7 1 S L4 AND METAL HYDROXIDE

L8 1 S L6 AND METAL HYDROXIDE

L9 5 S L6 AND VALSARTAN

L10 1 S L5 AND METAL HYDROXIDE

=> log y

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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

228.51

400.82

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-25.74

-25.74

STN INTERNATIONAL LOGOFF AT 21:22:13 ON 23 AUG 2007